



## HP Photosmart Digital Cameras + Technical Backgrounder

### Theatre Mode



## What is HP Theatre Mode

Theatre mode is a special photography mode in your HP Photosmart R817 or R818 digital camera that is designed to easily let you take effective photographs in a “Theatre” like setting such as a theater, museum, sporting event, church. Typically, when people take photos at an event like a school play – the camera flash fires and the image captured is of the backs of the heads audience members. The stage is usually a dark distant scene. If you remember to turn off your flash – then usually the camera will switch to a long shutter time and the photograph will be blurry either because you moved the camera or whatever you were photographing moved.

In HP Theatre mode the camera is programmed in a way that will enhance the ability of the camera to capture that distant stage scene without motion blur and without photographing everybody around you. Because a Theatre is a very challenging environment for a camera, not every photo will turn out so be sure to take several. Since the camera sound, focus assist light and flash is off – you won’t bother fellow audience members.

### How does HP Theatre Mode work?

In Theatre mode, the camera is set to operate in several special ways.

- Flash, auto focus assist light and sounds are turned off.
- Shutter speed is allowed to automatically vary, but is prevented from dropping too far to prevent motion blur and the aperture is opened for maximum light gathering.
- The ISO rating of the camera is increased beyond what is normally available, increasing the camera sensitivity to light.
- Camera exposure metering is optimized for the rather special lighting circumstances in a Theatre – such as a bright stage in a dark room.
- HP Adaptive Tone Mapping is utilized to further enhance and balance the contrast of this special scene.
- HP Adaptive Noise Filtering and Sharpening are optimized for the low light situation.

Some of these setting could be set using manual, shutter or aperture modes – but not all of them – and it would take a number of special settings. HP Theatre mode does it all automatically.

## Some Examples

The following images show the effect of theatre mode. All photos were taken without using a tripod and the HP R817 camera.

This picture was taken with the camera set to Auto mode, but with flash forced off to prevent it from firing. While the camera adjusts for the proper exposure, the long shutter time means that the photo is blurred because the people on the stage moved and the camera moved slightly during the photo.



The same scene taken in Theatre Mode on the HP Photosmart R817 camera.

Note how the feeling of a theatre scene is preserved and how the people on the stage are properly exposed but not blurred.



This picture shows the results of using Theatre Mode on the HP Photosmart R817 to take a photograph using the optical zoom function on the camera. Using optical zoom in this situation is even more challenging as less light is gathered by the lens and motion of the camera is accentuated. This is a shot that would be very difficult if not impossible to get using a traditional camera.



## Will HP Theatre Mode always work?

No. HP Theatre mode is very powerful and it will allow you to take photos, hand held, and using zoom, of events you probably could never photograph before – certainly without the use of a extremely fast lens and a tripod. But it is important to remember that a Theatre is a very challenging photographic environment. The images will probably appear more grainy than a photograph taken in normal lighting. If the subject of the photo is move very rapidly – they will likely be blurred. For best results- photograph the scene when motion is at a minimum or is coming toward or away from you and take lots of photos to capture that one you really want.

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